PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference LU6020	**FOR FURTHER ACTION**	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/EP 03/06043	International filing date *(day/month/year)* 10.06.2003	Priority date *(day/month/year)* 12.06.2002
International Patent Classification (IPC) or both national classification and IPC C08L23/00		
Applicant BASELL POLYOLEFINE GMBH		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets, including this cover sheet.

   ☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

   These annexes consist of a total of 2 sheets.

3. This report contains indications relating to the following items:

   - I ☒ Basis of the opinion
   - II ☐ Priority
   - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
   - IV ☐ Lack of unity of invention
   - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
   - VI ☐ Certain documents cited
   - VII ☐ Certain defects in the international application
   - VIII ☐ Certain observations on the international application

ART 34 CLAIMS NOT ENTERED
PRE AMDT FOR ORIGINAL CLAIM ONLY

Date of submission of the demand	Date of completion of this report
20.11.2003	21.05.2004
Name and mailing address of the international preliminary examining authority: European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Lippert, S Telephone No. +49 89 2399-8514

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/EP 03/06043

I. Basis of the report

1. With regard to the **elements** of the international application *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17))*:

Description, Pages

1-24 as originally filed

Claims, Numbers

1-13 received on 27.04.2004 with letter of 27.04.2004

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

   These elements were available or furnished to this Authority in the following language: , which is:

   ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).

   ☐ the language of publication of the international application (under Rule 48.3(b)).

   ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

   ☐ contained in the international application in written form.

   ☐ filed together with the international application in computer readable form.

   ☐ furnished subsequently to this Authority in written form.

   ☐ furnished subsequently to this Authority in computer readable form.

   ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

   ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

   ☐ the description, pages:

   ☐ the claims, Nos.:

   ☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

   (Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	1-13
	No:	Claims	
Inventive step (IS)	Yes:	Claims	1-13
	No:	Claims	
Industrial applicability (IA)	Yes:	Claims	1-13
	No:	Claims	

2. Citations and explanations

see separate sheet

ad V:

1. The claimed subject-matter is considered to be novel as none of the prior art documents cited in the International Search Report discloses all the technical features of the present application (Art.33(2) PCT).

2. The claimed subject-matter is considered to be inventive as the specific combination of features as now claimed cannot be derived from the prior art documents cited in the International Search Report alone or in combination in an obvious way, nor would any such combination have resulted in the present invention (Art.33(3) PCT).

3. Industrial applicability is given (Art.33(4) PCT).

4. The description is not adapted to the new set of claims 1-13 (Art.6 PCT).

ART 34 AMDT

We claim:

1. A propylene copolymer composition comprising

A) a propylene polymer containing from 0 to 10% by weight of olefins other than propylene and

B) at least one propylene copolymer containing from ~~5 to 40%~~ 12 to 18 % by weight of olefins other than propylene,

where the propylene polymer A and the propylene copolymer B are present as separate phases ~~and~~, the weight ratio of propylene polymer A to the propylene copolymer B is from 80:20 to 60:40 and the propylene copolymer composition has a haze value of ≤ 30%, based on a path length of the propylene copolymer composition of 1 mm, and the brittle/tough transition temperature of the propylene copolymer composition is ≤ -15°C.

2. A propylene copolymer composition as claimed in claim 1, wherein the propylene polymer A is a propylene homopolymer.

3. A propylene copolymer composition as claimed in claim 1 or 2, wherein the propylene polymer A has an isotactic structure.

4. A propylene copolymer composition as claimed in any of claims 1 to 3, wherein the olefin other than propylene is exclusively ethylene.

5. A propylene copolymer composition as claimed in any of claims 1 to 4, wherein the value for stress whitening, determined by the dome method at 23°C, is from 0 to 8 mm.

~~6. A propylene copolymer composition as claimed in any of claims 1 to 5, wherein the weight ratio of propylene polymer A to propylene copolymer B is in the range from 90:10 to 60:40.~~

6 7. A propylene copolymer composition as claimed in any of claims 1 to 5, wherein the copolymer B is dispersed in finely divided form in the matrix A.

~~8. A propylene copolymer composition as claimed in any of claims 1 to 7, wherein the content of olefins other than propylene in the copolymer B is from 7 to 25% by weight.~~

AMENDED SHEET

ART 34 AMDT

8. A propylene copolymer composition as claimed in any of claims 1 to 6, comprising from 0.1 to 1% by weight, based on the total weight of the propylene copolymer composition, of a nucleating agent.

10. A propylene copolymer composition as claimed in any of claims 1 to 8, wherein the glass transition temperature of the propylene copolymer B determined by means of DMTA (dynamic mechanical thermal analysis) is in the range from –20°C to –40°C.

11. A propylene copolymer composition as claimed in any of claims 1 to 10, wherein the ratio of the shear viscosity of propylene copolymer B to that of propylene polymer A at a shear rate of 100 s^{-1} is in the range from 0.3 to 2.5.

12. A propylene copolymer composition as claimed in any of claims 1 to 11, wherein the molar mass distribution M_w/M_n is in the range from 1.5 to 3.5.

13. A process for preparing a propylene copolymer composition as claimed in any of claims 1 to 12, wherein a multistage polymerization is carried out and a catalyst system based on metallocene compounds is used.

14. The use of a propylene copolymer composition as claimed in any of claims 1 to 12 for producing fibers, films or moldings.

15. A fiber, film or molding comprising a propylene copolymer composition as claimed in any of claims 1 to 12, preferably as substantial component.

10

AMENDED SHEET